Coral Restoration Foundation Data Sharing Plan

The Staghorn and Elkhorn Coral Restoration in the Florida Keys: Increasing population numbers for two ESA Listed Species

Submitted to

NOAA Restoration Center

The key elements of the Coral Restoration Foundation (CRF) Data Sharing Plan are that all data and results will be made available to the public within two years of when data are collected. This includes peer-reviewed publications, presentations and conferences, and summaries on the CRF website. Reports and publications will be provided to the Florida Keys National Marine Sanctuary to help advance their public outreach and education activities through production of timely Science Summaries (http://floridakeys.noaa.gov/scisummaries/welcome.html). This project has three main elements, two of which include transplanting large numbers of corals to reefs throughout the Florida Keys (with a focused effort in the Middle Keys to reefs where corals were killed in the 2010 cold water event), and one that involves transplanting corals to Little Conch Reef in a series of large clumps and thickets. For transplants throughout the Keys, data will be collected by CRF, Florida Fish and Wildlife (FWC), and Nova Southeastern University Oceanographic Center (NSU-OC) teams, using methods previously developed as part of Keys-wide monitoring programs (Miller et al. 2012; Williams et al. 2006). Both of these publications will be made available on the CRF website. In summary, data collected will include time and location of transplants, sizes of transplants (largest diameter, second diameter, height), and growth and condition over time. Data are collected using underwater slates and pencils, which are scanned at the end of each field session, and then entered in a data base program. Photographs will also be taken of transplanted corals for archival purposes. Sampling frequency will be performed based on the Project Time Line. Corals transplanted at Little Conch Reef, because they are assembled in larger clumps and thickets, are at too high a density to measure individually. Instead, two methods will be used to collect data by NSU-OC and CRF teams, including high-resolution photo mosaics that will be produced before and throughout the course of the project (every six months depending on condition of the corals), and size and condition of the clusters and thickets. Photo mosaics will be analyzed using standard point-count software for size and cover data. Size of the clusters and thickets will include largest diameter, second diameter, and height. Condition measurements for all aspects of the project include percent living and dead coral, prevalence of disease and bleaching, and numbers of damselfish territories, predatory snails, fire worms, and sea urchins.

Publications and reports will be available to the public upon request to CRF at Programs@coralrestoration.org. Contact Ken Nedimyer at coralrestoration@gmail.com for more information or to make a data request. Consistent with the CRF mission to not only develop restoration technologies and methodologies, as well as educate others to use them, nothing developed by CRF is, or will be, proprietary. In the past, we have shared similar data

through grant progress reports, FKNMS annual reports, FWC progress reports and public presentations at conferences and seminars. We will also work with the NOAA Restoration Center, based on their interest, to archive data and to make the data publically available into the future. All future sub-awardees not identified in this plan will have as a condition of their contract acceptance of this data sharing plan. Any additional data sharing stipulations for future sub-awardees may be outlined at that time and described in their contract.

Miller, SL, M Chiappone, and L Rutten. 2012. Sampling Methods for *Acropora* Corals, Other Benthic Reef Organisms, and Marine Debris in the Florida Keys. Field Protocol Manual for 2011-2012 Assessments. 52 pp.

Williams, DE, MW Miller, KL Kramer. 2006. Demographic Monitoring Protocols for Threatened Caribbean *Acropora* spp. corals. NOAA Technical Memorandum NMFS-SEFSC-543:91.